

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1, 2, 4, 8, and 10 have been amended. Claims 3, 6, 7, and 9 have been canceled.

Claim 2 stands rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularity point out and distinctly claim the subject matter. Claim 2 has been amended to recite "that the first electrode is in contact with the coin located at one end of the row and the second electrode is in contact with the coin at the other end of the row." It is believed that this amendment more explicitly describes the electrodes and their relationship to the rest of the elements. Thus, this amendment removes the grounds for this rejection and notice to that effect is hereby requested.

Claim 8 stands rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularity point out and distinctly claim the subject matter. Claim 8 has been amended to recite that "the first electrode is constructed to be in contact with an upper peripheral portion of the coin located at the one end of the row held in the coin holding portion; and the second electrode is constructed to be in contact with a lower peripheral portion of the coin located at the other end of the row held in the coin holding portion." This amendment clarifies that the coins held in the coin holding portion are in contact with the first and second electrodes. It is believed

that this amendment removes the grounds for this rejection and notice to that effect is hereby requested.

Claims 9-10 stand rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. In particular, the Examiner indicates that it is unclear what opposing surface is being referred to. Claim 9 has been canceled and the features of claim 9 have been added to claim 4. Claim 10 has been amended to depend from claim 4.

Additionally, claim 4 has been amended to recite "the coin holding portion including two plate members spaced apart in a thickness direction and an opposing surface opposing a bottom opening of **a space** formed between the two plate members, and is constructed so that the coins are held between the two plate members with outer peripheral portions thereof being in contact with the opposing surface" in order to more explicitly describe the opposing surface and the bottom opening. Furthermore, claim 4 has been amended to recite that "the coin collecting mechanism being constructed so that, when the two plate members are swung to one side, **the coins of the row get out of contact with the opposing surface to drop down from between the two plate members into a coin box**" to describe how the opposing surface works to drop down the coins into the coin box. It is believed that these amendments remove the grounds for the rejection of claim 10 and notice to that effect is hereby requested.

The Examiner has rejected claims 1, 2, and 4-12 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2001/0023809 to Ishida et al. in view of U.S. Pat. No. 5,947,257 to Schwartz. Additionally, the Examiner has rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Ishida and Schwartz in

view of U.S. Pat. No. 5,433,310 to Bell. While claim 3 has been canceled, the features of claim 3 have been added to claim 1. Accordingly, the rejection of claim 3 will be addressed as though it were directed to claim 1. The Examiner's rejections are traversed for the following reasons.

One aspect of the present invention relates to a method of determining completion of coin insertion that determines whether or not a required number of coins have been inserted into a coin holding portion of a coin collecting device for a vending machine that includes a coin path having the coin holding portion where the required number of coins for purchasing an article are held in a row. The method includes the steps of providing the coin holding portion that is constructed so that the coins held in a row therein are electrically connected to each other in series, providing a first electrode, which comes into contact with the coin located at one end of the row, to the coin holding portion, and providing a second electrode, which comes into contact with the coin located at the other end of the row, to the coin holding portion. The method also includes the steps of determining completion of insertion of the required number of coins, based on whether or not an electric current flows between the first and second electrodes, and determining whether or not a forged coin is inserted, based on the value of the electric current.

Ishida involves a coin handling method and device. The coin handling device (100) includes an insertion unit (1), an identification unit (2) for identifying the inserted coins as authentic or counterfeit, a coin passage (3), an escrow passage (4) for temporarily holding coins, and coin tubes (5a-5e) for storing the coins by denomination.

Schwartz relates to an electronic coin counter for a cashier station. The

electronic coin counter (20) has a housing (39) to secure the electronic coin counter (20) in place atop a cash register drawer (22). The cash register drawer (22) has compartments (24-30) for coins of different denominations. Above each of the compartments (24-30) are sleeves (32-38).

Bell involves a coin discriminator with offset null coils. The coin discriminator apparatus (20) compares a deposited coin (22) to a reference coin (24) that is mounted in the apparatus (20). The reference coin (24) is held between an exciting coil (34) and a receiving coil (38). The deposited coin (22) moves along a feed path (40), passing between a second exciting coil (32) and the receiving coil (38).

Ishida discloses a validator (100), which may correspond to the coin collecting device of the present application. The validator (100) of Ishida includes the coin passage (3) with the escrow passage (4), which is similar to the coin holding portion of the present application. In the escrow passage (4) of Ishida, the inserted coins are held in a row. However, the escrow passage (4) is not provided with a first electrode at one end of the passage and a second electrode at the other end of the passage. As such, Ishida cannot be cited for teaching the steps of "providing a first electrode, which comes into contact with the coin located at one end of the row, to the coin holding portion" and "providing a second electrode, which comes into contact with the coin located at the other end of the row, to the coin holding portion" as required by claim 1.

Additionally, as acknowledged by the Examiner, Ishida fails to teach or suggest using the value of the electric current to determine whether or not a coin is genuine. As such, it is considered apparent that Ishida cannot be cited for teaching the step of "determining whether or not a forged coin is inserted, based on the value

of the electric current" as recited by claim 1. Review of the cited references also fail to teach or suggest this step.

Schwartz discloses a sleeve (32), which may correspond to the coin holding portion of the present application. The sleeve (32) of Schwartz is where inserted coins are received in a column (41) so as to be electrically connected in series to each other. A plurality of sensor tips (80), which may correspond to the electrodes of the present application, are provided on a breadboard (78) to form a sensor array (56). The coins are in contact with the sensor array (56) and then an electric current flows across the sensor tips (80). With this configuration, the inserted coins are counted. However, Schwartz fails to teach or suggest the step of "determining whether or not a forged coin is inserted, based on the value of the electric current" as recited by claim 1.

The coin discriminator of Bell includes the two send coils (32, 34) that generate an electromagnetic field, the receive coil (38), and the reference coin (24). The reference coin (24) is disposed between the send coil (34) and the receive coil (38). A coin is inserted into between the send coil (32) and the receive coil (38) and passes therethrough. When the coin passes through between the send coil (32) and the receive coil (38), the current value of the current flowing through the receive coil (38) is compared with that of the current flowing from the send coil (34) to the receive coil (38) via the reference coin (24) due to the electromagnetic field generated. It is then determined whether or not the inserted coin is the same as the reference coin (24). However, the configuration of the coin discriminator according to Bell is different from the steps of "providing the coin holding portion that is constructed so that the coins held in a row therein are electrically connected to each

other in series; providing a first electrode, which comes into contact with the coin located at one end of the row, to the coin holding portion; providing a second electrode, which comes into contact with the coin located at the other end of the row, to the coin holding portion; and determining completion of insertion of the required number of coins, based on whether or not an electric current flows between the first and second electrodes" as recited by claim 1. Accordingly, Bell does not teach or suggest the step of "determining whether or not a forged coin is inserted, based on the value of the electric current" as recited by claim 1 of the present application.

It is offered that one skilled in the art would not readily anticipate that the coin discriminator of Bell may be used in the validator of Ishida. If the coin discriminator was used in the validator (or in a device of Schwartz), the discriminator would be disposed in the coin passage and then it would determine whether or not each inserted coin is a forged coin. In contrast with claim 1 of the present application, it can be determined at one time if there are any forged coins among all of the inserted coins.

Therefore, for at least the above reasons, removal of the rejection of claim 1, and claim 2 that depends therefrom, should be removed.

With regard to independent claim 4 of the present application, Ishida teaches that the inserted coins held in a row in the escrow passage (4) are guided to a coin tube, return passage, and coin box passage. However, Ishida does not teach or suggest "the coin holding portion including two plate members spaced apart in a thickness direction and an opposing surface opposing a bottom opening of a space formed between the two plate members, and is constructed so that the coins are held between the two plate members with outer peripheral portions thereof being in

contact with the opposing surface" as recited by claim 4 of the present application. Accordingly, Ishida cannot be cited for teaching or suggesting that "both upper end portions of the two plate members being disposed to be able to swing via a hinge mechanism" or that "the coin collecting mechanism being constructed so that, when the two plate members are swung to one side, the coins of the row get out of contact with the opposing surface to drop down from between the two plate members into a coin box" as also recited by claim 4. It is noted that Schwartz and Bell also fail to cure this deficiency. Accordingly, the rejection of claim 4, and claims 5, 8, 10, 11 and 12 that depend therefrom, should be removed.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. NIS-16743.

Respectfully submitted,

RANKIN, HILL & CLARK LLP

By /Kevin M. Goodman/
Kevin M. Goodman, Reg. No. 63864

38210 Glenn Avenue
Willoughby, Ohio 44094-7808
(216) 566-9700